

**REMARKS**

Claims 1, 3-5, 7-8, 10-11, and 13 are pending. Applicants have carefully considered the Office Action dated January 8, 2008 (“Office Action”) in this Application. Applicants have amended Claims 1, 3, 5, 7, 11, and 13 in this Response. Applicants have cancelled Claims 2 and 6 in this Response. Applicants present the above amendments and following remarks in a sincere attempt to place this Application in condition for allowance. Applicants respectfully request reconsideration and allowance in light of the above amendments and the following remarks.

Applicants thank the Examiner for the courtesy of a telephone interview of April 14, 2007. During the interview, the following remarks were discussed.

Claims 11 and 13 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite based on a lack of antecedent basis informality. *See* Office Action, Page 3. Applicants have amended Claim 11 to recite, in relevant part: “A processor comprising a computer program for file defragmentation of at least one storage medium at least coupled to a computer system, the computer program embodied on a tangible computer-readable medium and comprising . . .”. Applicants have amended Claim 13 to recite, in relevant part: “A processor comprising a computer program for defragmenting at least one storage medium coupled to a computer system, the computer program embodied on a tangible computer-readable medium and comprising . . .”. Applicants respectfully submit that the rejections under 35 U.S.C. §112, second paragraph, have been overcome and therefore respectfully request that these rejections be withdrawn.

Claims 11 and 13 stand rejected under 35 U.S.C. §101 as allegedly directed to non-statutory subject matter. *See* Office Action, Page 3. Applicants respectfully traverse these

rejections. Nevertheless, Applicants have amended Claim 11 to recite, in relevant part: “A processor comprising a computer program for file defragmentation of at least one storage medium at least coupled to a computer system, the computer program embodied on a tangible computer-readable medium and comprising . . .” Further, Applicants have amended Claim 13 to recite, in relevant part: “A processor comprising a computer program for defragmenting at least one storage medium coupled to a computer system, the computer program embodied on a tangible computer-readable medium and comprising . . .” Applicants respectfully submit that these amendments overcome the rejections under 35 U.S.C. §101 and therefore respectfully request that these rejections be withdrawn.

Claims 1-8, 10-11, and 13 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,757,804 by Jochemsen et al. (“Jochemsen”) in view of U.S. Patent Application Pub. No. 2003/0101383 by Carlson (“Carlson”). Applicants respectfully traverse these rejections.

MPEP §2142 defines the Examiner’s obligation to produce reasoning and evidence in support of obviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

MPEP §2143 sets out the three basic criteria that a patent examiner must satisfy to establish a *prima facie* case of obviousness:

1. some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
2. a reasonable expectation of success; and
3. the teaching or suggestion of all the claim limitations by the prior art reference (or references when combined).

It follows that in the absence of such a *prima facie* showing of obviousness by the Examiner (assuming there are no objections or other grounds for rejection), an applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443 (Fed. Cir. 1992). Thus, in order to support an obviousness rejection, the Examiner is obliged to produce evidence compelling a conclusion that each of the three aforementioned basic criteria has been met.

Applicants respectfully submit that the Examiner has failed to establish *prima facie* obviousness for each Claim because the Examiner has at least failed to produce evidence showing the teaching or suggestion of all the Claim limitations by the references here.

First, regarding Claim 8, the Examiner asserts that Jochemsen teaches, “determining if the computer system is idle if the computer system is not idle, sleeping for an interval.” Office Action, Page 9 (*citing* Jochemsen, col. 1, lines 49-58). Nowhere does Jochemsen disclose “determining if the computer system is idle” or performing any actions based on that determination. The Examiner’s citation does not even hint at “determining if the computer system is idle”:

When a delete operation is necessary, it is desirable permanently to delete the minimum number of files so that (a) at least the required amount of free space is created; and (b) defragmentation and free-space defragmentation are optimized.

It is an aim of preferred embodiments of the present invention to provide a method, system and corresponding computer program product for reducing fragmentation of a digital storage device.

Jochemsen, col. 1, lines 49-58. As shown, the cited passage does not come anywhere close to teaching any determination of whether the computer system is idle. Applicants respectfully submit that nowhere else does Jochemsen even hint at “determining if the computer

system is idle.” Nor has the Examiner provided any citation whatsoever that does teach this element.

Instead, and contradicting the Examiner’s own citation, the Examiner states “Jochemsen does not explicitly disclose as it is silent about the system operating when idle.” Office Action, Page 9. Applicants respectfully note that “the system operating when idle” does not imply or suggest “determining if the computer system is idle,” as recited in the Claim. The Examiner offers Carlson as purportedly teaching “the system working at all times and explicitly discloses about the idle system.” Office Action, Page 9 (*citing* Carlson, paragraphs [0026]-[0027]). But neither does the Carlson reference, in the cited passage or elsewhere, teach or suggest “determining if the computer system is idle,” as recited in the Claim. As such, for this reason alone, the Examiner’s proposed combination cannot support *prima facie* obviousness.

And “determining if the computer system is idle” is not the only element missing from the Examiner’s proposed combination. For example, nowhere does Jochemsen/Carlson teach “determining if defragmentation is complete [sic] if defragmentation is complete, deleting the location of the fragmented file clusters in the storage medium” as the Examiner alleges. Office Action, Page 9 (*citing* Jochemsen, col. 1, lines 49-53). As shown above, the cited reference does not teach anything close to “determining if defragmentation is complete.” *See supra*; Jochemsen, col. 1, lines 49-53. Applicant respectfully submits that nowhere else does Jochemsen teach “determining if defragmentation is complete.” Nor does the Examiner anywhere suggest that Carlson supplies this missing element.

Similarly, Jochemsen/Carlson completely fails to teach, “if defragmentation is not complete, determining if defragmentation is stopped by activity” as the Examiner alleges. Office Action, Page 9 (*citing* Jochemsen, col. 3, lines 22-34). The cited passage states:

When a deletion operation is initiated (step 200) the file manager 30 is interrogated (step 202) to determine whether multiple files are available for deletion. A file is available for deletion if it has been so annotated. A file is only available for deletion if in doing so it provides sufficient free-space for the required write operation. This may mean that several of a plurality of files need to be deleted. If only a single file is available for deletion, it is deleted (step 204) and the file manager 30 updated accordingly (step 210). If multiple files are available a file is selected to be deleted to reduce fragmentation (step 206). Options for selecting the file to be deleted in this embodiment of the present invention are set out below. Next the selected file is permanently deleted (step 208) and the file manager 30 is updated accordingly (step 210).

Jochemsens, col. 3, lines 22-36. As shown, nowhere in the cited passage does Jochemsens even hint at “stopping defragmentation” much less “determining whether defragmentation is stopped by activity,” as recited in Claim 8. Applicants respectfully submit that nowhere else does Jochemsens even hint at “determining whether defragmentation is stopped by activity.” Accordingly, Jochemsens fails to show this element, as well. Nor does the Examiner anywhere suggest that Carlson supplies this missing element.

Likewise, Jochemsens/Carlson also fails to show, among other things, “sleeping for an interval” or “reporting an error” as a function of “determining if defragmentation is stopped by activity.” Nor does the Examiner provide any evidence of these missing elements. The Examiner does not even suggest that Carlson provides these missing elements and merely cites the same inapposite passages of Jochemsens. *See* Office Action, Page 9. Thus, for at least the above reasons, Applicants have shown that the Examiner’s proposed combination of Jochemsens/Carlson cannot support *prima facie* obviousness, nor a Section 103 rejection, of Claim 8, as Jochemsens/Carlson completely fails to teach several elements of Claim 8. Accordingly, Applicants respectfully request that the rejection of Claim 8 be withdrawn.

Next, Applicants respectfully submit that Jochemsens/Carlson also fails to teach each and every element of the remaining pending Claims, in a similarly clear manner as above.

Specifically, the Examiner's cited passages in Jochemsen wholly fail to even mention, much less support the elements they are offered to teach, while the secondary reference likewise fails to teach these elements. For example, regarding Claim 10, Jochemsen fails to teach at least the following elements recited in Claim 10, "determining if the computer system is idle", "determining if defragmentation is complete", "determining if [defragmentation] is stopped by activity" and "sleeping for an interval" or "reporting an error" based on whether defragmentation is stopped by activity. As described above, these elements are wholly missing from Jochemsen.

Regarding Claim 10, the Examiner cites a different passage to support "determining if the computer system is idle," than the passage offered against Claim 8, but that passage also teaches nothing anywhere close to "determining if the computer system is idle." *See* Office Action, Page 10 (*citing* Jochemsen, col. 2, lines 1-10). Specifically, the cited passage states:

According to the present invention in a second aspect, there is provided a system arranged for reducing fragmentation of a digital storage device, characterized by the system comprising means for determining that a plurality of files is available for deletion; means for selection one of the files; and means for deleting the selected file and not deleting another of the files.

It has been realized that with digital storage devices annotating a plurality of files for deletion, there is an efficient opportunity to reduce fragmentation by selective file deletion.

Jochemsen, col. 2, lines 1-11. Clearly, the cited passage comes nowhere near teaching "determining whether the computer system is idle." As described above, Applicants respectfully submit that nowhere else does Jochemsen even hint at "determining if the computer system is idle." Nor has the Examiner provided any citation whatsoever that does teach this element.

Instead, and again contradicting the Examiner's own citation, the Examiner offers the same reasoning as applied to Claim 8, stating, "Jochemsen does not explicitly disclose as it is silent about the system operating when idle." Office Action, Page 9. Applicants again

respectfully note that “the system operating when idle” does not imply or suggest “determining if the computer system is idle,” as recited in the Claim. The Examiner offers Carlson as purportedly teaching “the system working at all times and explicitly discloses about the idle system.” Office Action, Page 9 (*citing* Carlson, paragraphs [0026]-[0027]). But neither does the Carlson reference, in the cited passage or elsewhere, teach or suggest “determining if the computer system is idle,” as recited in the Claim. As such, for this reason alone, the Examiner’s proposed combination cannot support *prima facie* obviousness.

As described above with respect to Claim 8, neither does Jochemsen/Carlson teach “determining if defragmentation is complete;” “if determination is not complete, determining if stopped by activity;” “if defragmentation is stopped by activity, sleeping for an interval;” or “if defragmentation is not stopped by activity, reporting an error,” as recited in Claim 10. Thus, for at least the above reasons, Applicants have shown that the Examiner’s proposed combination of Jochemsen/Carlson cannot support *prima facie* obviousness, nor a Section 103 rejection, of Claim 10, as Jochemsen/Carlson completely fails to teach several elements of Claim 10. Accordingly, Applicants respectfully request that the rejection of Claim 10 be withdrawn.

Next, regarding Claim 11, Applicants respectfully submit that the Examiner’s proposed combination of Jochemsen/Carlson also fails to teach at least the following elements recited in Claim 11, “determining if the computer system is idle”, “determining if defragmentation is complete,” “determining if [defragmentation] is stopped by activity” and “sleeping for an interval” or “reporting an error” based on whether defragmentation is stopped by activity. As described above, these elements are wholly missing from Jochemsen. Nor has the Examiner provided any citation whatsoever that does teach this element.

Instead, and again contradicting the Examiner's own citation, the Examiner offers the same reasoning as applied to Claim 8 and Claim 10, stating, "Jochemsen does not explicitly disclose as it is silent about the system operating when idle." Office Action, Page 12. The Examiner offers Carlson as purportedly teaching "the system working at all times and explicitly discloses about the idle system." Office Action, Page 12 (*citing* Carlson, paragraphs [0026]-[0027]). But neither does the Carlson reference, in the cited passage or elsewhere, teach or suggest "determining if the computer system is idle," as recited in the Claim. Thus, for at least the above reasons, Applicants have shown that the Examiner's proposed combination of Jochemsen/Carlson cannot support *prima facie* obviousness, nor a Section 103 rejection, of Claim 10, as Jochemsen/Carlson completely fails to teach several elements of Claim 10. Accordingly, Applicants respectfully request that the rejection of Claim 10 be withdrawn.

Next, regarding Claim 13, Applicants respectfully submit that the Examiner's proposed combination of Jochemsen/Carlson fails to teach at least the following elements recited in Claim 13, "determining if the computer system is idle", "determining if defragmentation is complete," "determining if [defragmentation] is stopped by activity" and "sleeping for an interval" or "reporting an error" based on whether defragmentation is stopped by activity. As described above, these elements are wholly missing from Jochemsen. Nor has the Examiner provided any citation whatsoever that does teach this element.

Instead, and again contradicting the Examiner's own citation, the Examiner offers the same reasoning as applied to Claims 8, 10, and 11, stating, "Jochemsen does not explicitly disclose as it is silent about the system operating when idle." Office Action, Page 13. The Examiner offers Carlson as purportedly teaching "the system working at all times and explicitly discloses about the idle system." Office Action, Page 13 (*citing* Carlson, paragraphs [0026]-



[0027]). But neither does the Carlson reference, in the cited passage or elsewhere, teach or suggest “determining if the computer system is idle,” as recited in the Claim. Thus, for at least the above reasons, Applicants have shown that the Examiner’s proposed combination of Jochemsen/Carlson cannot support *prima facie* obviousness, nor a Section 103 rejection, of Claim 13, as Jochemsen/Carlson completely fails to teach several elements of Claim 13. Accordingly, Applicants respectfully request that the rejection of Claim 13 be withdrawn.

Next, regarding Claims 3 and 7, the Examiner’s proposed combination of Jochemsen/Carlson wholly fails to even mention the missing elements. Applicants respectfully submit that neither Jochemsen nor Carlson teach modifying the attributes of defragmentation “wherein the attributes are selected from the group consisting of file type, frequency of access, typical access duration, interval between accesses, file/application association, file size, read attributes, update attributes, and time of day of typical access,” as asserted by the Examiner. Office Action, Pages 5-6 and 8 (*citing* Jochemsen, col. 4, lines 22-226 [sic], and 42-47). While the Examiner relies exclusively on Jochemsen as purportedly showing the above elements, Applicants respectfully submit that Carlson also fails to teach these elements. Applicants respectfully submit that nowhere does Jochemsen, either in the cited passages or elsewhere, recite the above limitation.

For example, Jochemsen recites:

The determination of which file to delete whichever selection option is chosen is carried out by interrogating the file manager 30. For every file in a set of deletable files the effect of deletion on file fragmentation and free-space fragmentation is calculated.

...

The effect on free-space fragmentation is calculated by calculating the changes the deletion (for each file) would have on the free-space fragments (step 402). New free-space fragments might appear (undesirable), but several free-space

fragments can be connected by deletion creating new free-space fragments (desirable). In general, the number of free-space fragments will increase (i.e. a positive change).

Jochemsen, col. 4, lines 22-26, 42-47. Clearly, this passage does not teach “wherein the attributes are selected from the group consisting of file type, frequency of access, typical access duration, interval between accesses, file/application association, file size, read attributes, update attributes, and time of day of typical access,” as recited in Claims 3 and 7. Applicants respectfully submit that nowhere else does Jochemsen teach this element.

Thus, for at least the above reasons, Applicants have shown that the Examiner’s proposed combination of Jochemsen/Carlson cannot support *prima facie* obviousness, nor a Section 103 rejection, of Claims 3 or 7, as Jochemsen/Carlson completely fails to teach several elements of Claims 3 and 7. Accordingly, Applicants respectfully request that the rejections of Claims 3 and 7 be withdrawn.

Next, Applicants have amended Claims 1 and 5 to recite, in relevant part, “wherein the agent is at least . . . *configured to modify attributes of defragmentation*” and “a defragmenter, wherein the defragmenter is at least configured . . . *to modify attributes of defragmentation*,” respectively. (Emphasis added.) Support for these amendments can be found, among other places, in Claims 2 and 6 of the Original Application and throughout the Specification.

Applicants respectfully submit that the Examiner’s proposed combination of Jochemsen/Carlson similarly fails to teach and agent/defragmenter configured “to modify attributes of defragmentation,” as asserted by the Examiner. Office Action, Pages 5 and 8 (*citing* Jochemsen, col. 3, lines 37-46). Applicants respectfully submit that nowhere does Jochemsen, either in the cited passages or elsewhere, recite the above limitation. Nor does the Examiner assert, or Carlson in fact show, the above limitation.

Instead, the cited passage teaches selecting one of a number of files for deletion, stating, “there can be several criteria to determine the text file to delete.” Jochemsen, col. 3, lines 40-41. Applicants respectfully submit that this fails to teach “modify[ing] attributes of defragmentation,” as recited in Claims 1 and 5. Thus, for at least the above reasons, Applicants have shown that the Examiner’s proposed combination of Jochemsen/Carlson cannot support *prima facie* obviousness, nor a Section 103 rejection, of Claims 1 or 5, as Jochemsen/Carlson completely fails to teach several elements of Claims 1 and 5. Accordingly, Applicants respectfully request that the rejections of Claims 1 and 5 be withdrawn.

Additionally, dependent Claims 3, 4, and 7, depend upon and further limit independent Claims 1 and 5. Hence, for at least the aforementioned reasons, these dependent Claims would be deemed to be in condition for allowance. Therefore Applicants also respectfully request the Examiner to withdraw the rejections of dependent Claims 3, 4, and 7.

Applicants have now addressed all of the Claim objections and rejections cited in the Office Action. In view of the amendments to the Claims and Applicants’ remarks, Applicants believe that pending Claims 1, 3-5, 7-8, 10-11, and 13 are in condition for allowance, and respectfully request allowance of Claims 1, 3-5, 7-8, 10-11, and 13.

Applicants hereby request an extension of time for making this reply and hereby authorize the Director to charge the required fee to Deposit Account No. 50-0605 of CARR LLP. Applicants do not believe that any other fees are due; however, in the event that any other fees are due, the Director is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account No. 50-0605 of CARR LLP.

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Should the Examiner deem that any further amendment is desirable to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

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